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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,330	04/05/2005	Hiroshi Yamamoto	P27664	4666
7055 7590 05/18/2007 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			EXAMINER HARRIS, GARY D	
			ART UNIT 1773	PAPER NUMBER
			NOTIFICATION DATE 05/18/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

## Office Action Summary

Application No.

10/530,330

Applicant(s)

YAMAMOTO ET AL.

Examiner

Gary D. Harris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-7 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 & 1-7 of copending Application No. 10/353,072 & 11/062,738 (resp.). Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications disclose fine spinel ferromagnetic particles having compositions of cobalt and nickel.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatatani et al. US 5,648,014 and further in view of Yamamoto et al. IEEE Transactions on Magnetism, Vol. 38, NO. 5 September 2002.

As to Claim 1, 2, 3, & 4, Hatatani et al. '014 discloses a conventionally known method of producing a magnetite layer on the surface of acicular magnetite particles as the core particles in a cobalt coating process, producing a spinel ferrite layer composed of magnetite and a cobalt compound on the surfaces of the acicular magnetite particles (Col. 2, Line 37-41). Hatatani et al. '014 further discloses that it is possible to use particles selected from a group to include Ni and Zn (Col. 6, Line 40-42). Hatatani et al. '014 discloses, in order to improve the recording density of a magnetic recording medium, the magnetic particles as a material should be as fine as possible and should have as high a coercive force as possible (Col. 1, Line 21-25). Hatatani et al. '014 does not disclose the molar ratio. However, Yamamoto et al. IEEE Transactions on Magnetism, Vol. 38, NO. 5 September 2002 teaches that by adjusting the molar ratio the magnetic properties and crystalline structure can be improved. Therefore, adjusting the

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molar ratio would be obvious as taught by Yamamoto in order to enhance the magnetic properties in the Hatatani et al. '014 invention.

As to Claim 4, 5, & 6 Hatatani et al. '014 discloses an aqueous solution of a ferrous salt, an aqueous ferrous sulfate, an aqueous ferrous chloride, etc. are usable. The amount of aqueous solution of a ferrous salt added is 3 to 15 wt % (Col. 6, Line 58-61) and adding a cobalt salt while hardly any ferrous hydroxide colloid in the suspension, it is possible to form a cobalt-containing oxide layer which have a high concentration of cobalt, which leads to a great improvement of a coercive force (Col. 10, Line 4-8) while the pH of the suspension is preferably not less than 11 (Col. 7, Line 29-30). Hatatani et al. '014 teaches that if the temperature exceeds 60 degree C, the coercive force distribution becomes large (Col. 7, Line 48-51) and would anticipate applicant's coercivity and saturation magnetization. Additionally, the precipitated black particles were filtered out, washed with water and dried by an ordinary method (Col. 13, Line 11-12). Hatatani et al. '014 does not disclose the coercivity and saturation magnetization or conditions of x, y, and n. However, Yamamoto et al. IEEE Transactions on Magnetism, Vol. 38, NO. 5 September 2002 teaches that by adjusting the molar ratio the magnetic properties and crystalline structure can be improved. Therefore, adjusting the molar ratio would be obvious as taught by Yamamoto in order to enhance the magnetic properties in the Hatatani et al. '014 invention.

As to Claim 7, Hatatani et al. '014 discloses that in order to improve the recording density of a magnetic recording medium, the magnetic particles as a material should be as fine as possible and should have as high a coercive force as possible (Col. 1, Line 21-24). Additionally, Yamamoto et al. IEEE Transactions on Magnetics, Vol. 38, NO. 5 September 2002 teaches the substitution of fine particles and the tendency to become a complex mixture of ferrimagnetic spinel phase.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary D. Harris whose telephone number is 571-272-6508. The examiner can normally be reached on 8AM - 5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol D. Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GH



**CAROL CHANEY**  
**SUPERVISORY PATENT EXAMINER**